REMARKS

By this Amendment, claims 1-14 and 18-38 are pending. Claims 15-17 are canceled; claims 1-4, 7-14 and 18-20 are amended; and claims 21-38 are added herein. The attached Appendix includes marked-up copies of each rewritten paragraph (37 C.F.R. 1.121(b)(iii)) and claim (37 C.F.R. 1.121(c)(ii)).

The attached paper copy and computer-readable copy of the Sequence Listing are submitted in compliance with 37 C.F.R. §§1.821-1.825. The contents of the paper copy and the computer-readable copy of the Sequence Listing are the same. No new matter is added. Support for the information provided in the Sequence Listing can be found in the original Sequence Listing and in the specification at page 19.

A Restriction Requirement is being asserted among the following groups:

Group I: claims 1-12 and 15-19, and embodiments of claim 20 directed to a diagnostic composition;

Group II: claims 13-14; and

Group III: embodiments of claim 20 directed to a therapeutic composition.

Applicants hereby elect Group I (claims 1-12 and 15-19 and embodiments of claim 20) with traverse.

New claims 21-36 and 38 should be examined together with the subject matter of Group I. In particular, all of these claims ultimately depend from one of claims 1, 2 or 4 of Group I. As such, they share a common special technical feature with the subject matter of Group I.

In particular, claims 24-32 merely further define the nucleic material of claims 1, 2 or 4. In addition, claims 33-35 merely further define the nucleotide fragment of claim 7 of Group I. Furthermore, claim 36 is directed to a replication vector that comprises a nucleotide

fragment according to claim 7. Thus, this claim incorporates all of the features of claim 7. In addition, claim 38 merely further defines the method of claim 18 of Group I.

Claims 21-23 are directed to a diagnosis method using the nucleic material according to claim 1. These claims substantially correspond to canceled claims 15-17, which were designated to correspond to Group I. Thus, they should be included in Group I for the same reasons that claims 15-17 were designated to correspond to Group I.

For all of these reasons, it is believed that new claims 21-36 and 38 should be examined together with the subject matter of Group I.

In addition, it is respectfully submitted that the subject matter of Group III should be examined together with Group I. In particular, Group III is directed to embodiments of claim 20 directed to a therapeutic composition. Both the diagnostic and therapeutic compositions of claim 20 comprise a common special technical feature in that both comprise a nucleic material according to claim 1. Therefore, it is respectfully submitted that restriction between these embodiments of this claim is improper and should be withdrawn.

Early and favorable examination on the merits is respectfully requested.

Respectfully submitted,

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Attachments:
Appendix
Sequence Listing (paper and computer-readable copies)

Date: May 29, 2001

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APPENDIX

Changes to Specification:

Page 1, line 3, the subheading "BACKGROUND OF THE INVENTION" is added.

Page 3, between lines 33 and 34, the subheading "SUMMARY OF THE INVENTION" is added.

Page 15, between lines 20 and 21, the subheading "BRIEF DESCRIPTION OF THE DRAWINGS" is added.

Page 17, between lines 19 and 20, the subheading "DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS" is added.

A revised Sequence Listing is added.

The following are marked-up versions of the amended paragraphs:

Page 5, lines 14-21, delete current paragraph and insert therefor:

This material is also characterized in that its genome comprises a reference nucleotide sequence, encoding any polypeptide exhibiting, for any contiguous sequence of at least 30 amino acids, at least 50% homology, ~~and~~ preferably at least 70% homology, more preferably at least 80% homology, and even more preferably at least 90% homology with a peptide sequence capable of being encoded by at least a functional part of the reference nucleotide sequence as defined above.

Page 19, lines 20-23, delete the current paragraph and insert therefor:

/note="splice junction (splice donor site ATCCAAAGTG-GTGAGTAATA (SEQ ID NO: 36) and splice acceptor site CTTTTTTCAG-ATGGGAAACG (SEQ ID NO: 37) clone RG083M05, GenBank accession AC000064)"

Changes to Claims:

Claims 15-17 are canceled.

Claims 21-38 are added.

The following is a marked-up version of the amended claims:

1. (Amended) Nucleic material of the retroviral genomic type, in an isolated or purified state, ~~at least partially functional or nonfunctional,~~ whose genome comprises a reference nucleotide sequence ~~chosen~~selected from the group ~~including~~consisting of ~~the~~ sequences of SEQ ID NOs: 1 to 15, their complementary sequences, and their equivalent sequences~~, in particular the nucleotide sequences exhibiting, for any sequence of 100 contiguous monomers, at least 70% and preferably at least 90% homology with respectively said sequences SEQ ID NOs: 1 to 15~~.

2. (Amended) Nucleic material of the retroviral genomic type, in an isolated or purified state, ~~at least partially functional or nonfunctional,~~ whose genome comprises a reference nucleotide sequence, encoding any polypeptide exhibiting, for any contiguous sequence of at least 30 amino acids, at least 80%~~, and preferably at least 90% homology~~ identity with a peptide sequence capable of being encoded by at least a functional part of ~~the~~ a reference nucleotide sequence ~~according to claim 1~~selected from the group consisting of sequences of SEQ ID NOs: 1 to 15 and their complementary sequences.

3. (Twice Amended) Nucleic material of the retroviral genomic type according to claim 1, comprising a nucleic fragment inserted between two sequences corresponding respectively to the LTR region and to the gag gene for the retroviral genomic structure~~, in particular a nucleic fragment consisting of or comprising the sequence SEQ ID NO: 12~~.

4. (Amended) Nucleic material of the subgenomic retroviral type, consisting of a nucleotide sequence identical to SEQ ID NO: 11, with at least one deletion~~, such as a sequence chosen from SEQ ID NOs: 7 to 9~~.

7. (Twice Amended) ~~Nucleotide~~ A nucleotide fragment of at least 100 bases, comprising a nucleotide sequence ~~chosen~~ selected from the group ~~comprising~~consisting of:

a) all the nucleotide sequences, partial and complete, of a nucleic material according to claim 1~~,~~;

b) all the nucleotide sequences, partial and complete, of a clone ~~chosen~~ selected from the group ~~including the clones~~ consisting of:

–cl.6A2 (SEQ ID NO: 1),

–cl.6A1 (SEQ ID NO: 2),

–cl.7A16 (SEQ ID NO: 3),

–cl.Pi22 (SEQ ID NO: 4),

–cl.24.4 (SEQ ID NO: 5),

–cl.C4C5 (SEQ ID NO: 6),

–cl.PH74 (SEQ ID NO: 7),

–cl.PH7 (SEQ ID NO: 8),

–cl.Pi5T (SEQ ID NO: 9),

–cl.44.4 (SEQ ID NO: 10),

–HERV-W (SEQ ID NO: 11),

–cl.6A5 (SEQ ID NO: 12),

–cl.7A20 (SEQ ID NO: 13),

–cl.7A21 (SEQ ID NO: 14), and

–LTR (SEQ ID NO: 15);

c) the sequences which are respectively complementary to the sequences according to a) and b); and

d) the sequences which are respectively equivalent to the sequences according to a) ~~to~~, b) and c)~~, in particular the nucleotide sequences exhibiting, for any sequence of 100 contiguous monomers, at least 50%, and preferably at least 70%, for example at least 90% homology with the sequences a) to c)~~.

8. (Twice Amended) ~~Nucleic~~ A nucleic probe for the detection of a nucleic material, ~~inserted or otherwise into a nucleic acid, characterized in that it~~ wherein said nucleic probe is capable of hybridizing specifically with ~~a~~ the reference nucleotide sequence of the nucleic material~~,~~ according to claim 1.

9. (Amended) ~~Probe~~ A probe according to claim 8, ~~characterized in that it comprises~~ comprising a marker.

10. (Twice Amended) ~~Nucleic~~ A nucleic primer for the amplification by polymerization of an RNA or of a DNA, ~~characterized in that it comprises~~ comprising a nucleotide sequence capable of hybridizing specifically with ~~a~~ the reference nucleotide sequence of the nucleic material according to claim 1.

11. (Amended) ~~Nucleic~~ A nucleic probe or nucleic primer, ~~characterized in that it consists of~~ comprising a nucleotide sequence ~~chosen~~ selected from the group ~~including~~ consisting of SEQ ID NOs: 16 to 28.

12. (Amended) An RNA or DNA, ~~and in particular replication vector,~~ comprising a nucleotide fragment according to claim 7.

13. (Amended) ~~Peptide~~ A peptide encoded by any open reading frame belonging to a nucleotide fragment~~,~~ according to claim 7~~, in particular polypeptide, for example oligopeptide forming an antigenic determinant recognized by sera from patients affected by an autoimmune disease, or a pathology which is associated with it, or from patients having a pathological pregnancy or an unsuccessful pregnancy~~.

14. (Amended) ~~Peptide~~ A peptide according to claim 13, ~~characterized in that it~~ wherein said peptide is encoded by a nucleotide fragment comprising an open reading frame encoding one or more retroviral ENV proteins.

18. (Amended) ~~Method~~ A method for the molecular labeling of at least one member selected from the group consisting of an autoimmune disease~~,~~ ~~or of~~ a pathology

~~which is~~ associated with ~~it~~ an autoimmune disease, ~~of~~ a pathological pregnancy ~~or of~~, and an unsuccessful pregnancy, ~~characterized in that~~comprising:

identifying and/or quantifying any nucleotide fragment according to claim 7, ~~either in RNA form or in DNA form, is identified and/or quantified~~ in any biological body material~~, in particular body fluid~~.

19. (Amended) ~~Method~~ The method according to claim 18, ~~characterized in that~~ further comprising:

detecting cells expressing the nucleotide fragment ~~according to the claim are detected~~ in said biological body material.

20. (Twice Amended) ~~Diagnostic~~ A diagnostic or therapeutic composition comprising a nucleic material according to claim 1.